AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): Integrated multispot satellite communication system in a multimedia broadcasting network with a return channel, comprising:

a satellite that receives a multimedia broadcast signal from a provider and transmits said multimedia broadcast signal to a user in response to a request from said user;

common means of burst synchronisation such that the transmission rate in a downlink direction from the satellite is a whole multiple of a clock reference of said network; and

a network controller that receives different return channels from said user and said provider, via said satellite, wherein a signalling part of said multimedia broadcast signal is addressed from said provider to said network controller,

wherein different uplink channels from a service provider and a user are inserted into a downlink signal in a synchronous manner and while the uplink channels are open and the downlink signal is being transmitted, such that a period of the downlink frame is equal to a period of the uplink frame.

2. (previously presented): The system according to claim 1, wherein said satellite is configured to generate said network clock reference.

3. (Previously Presented) The system of claim 2, further comprising a multiplexer.

4. (previously presented): The system according to claim 3, characterised in that said multiplexer inserts in the synchronous manner the different uplink channels from the service provider and the user into the downlink signal.

5. (currently amended): Method of burst synchronisation in an integrated multispot satellite communication system in a multimedia broadcasting network with return channel, comprising:

a network controller receiving different return channels from a user and a provider, via a satellite, wherein a signalling part of a multimedia broadcast signal from said provider to said user, in response to a user request, is addressed from said provider to said network controller,

wherein said synchronisation is common for a multimedia services provider and a user, in such a manner that the transmission rate in a downlink direction is a whole multiple of a network clock reference,

wherein different uplink channels are inserted into a downlink signal in a synchronous manner and while the uplink channels are open and the downlink signal is being transmitted, such that a period of the downlink frame is equal to a period of the uplink frame.

6. (previously presented): The method according to claim 5, comprising generating said network clock reference in said satellite of said system.

7. (previously presented): The method of claim 5, wherein said satellite uses a multiplexer to perform said synchronization.

8. (previously presented): The method of claim 7, wherein said multiplexer synchronously fits the different uplink channels into the downlink signal.

9. (Previously Presented) The system of claim 1, wherein said system is configured to communicate in accordance with digital video broadcasting-return channel system (DVB-RCS).

10. (Previously Presented) The method of claim 5, wherein method comprises communicating in accordance with digital video broadcasting-return channel system (DVB-RCS).

11. (Previously Presented) The system of claim 1, wherein said downlink direction transmission rate is one of 54 Mbit/s, 81 Mbit/s and 108 Mbit/s.

12. (Previously Presented) The method of claim 5, wherein said downlink direction transmission rate is one of 54 Mbit/s, 81 Mbit/s and 108 Mbit/s.

13. (Previously Presented) The system of claim 1, wherein a bandwidth of a transmitter onboard said satellite is a multiple of 27 MHz.

14. (Previously Presented) The method of claim 5, wherein a transmitter onboard said satellite operates at a bandwidth that is a multiple of 27 MHz.

15. (Previously Presented) The system of claim 1, further comprising:

a regenerator, positioned on said satellite, that performs multiplexing and at least one of cross-connecting and broadcasting channels to different coverage zones, wherein said network controller performs control operations and verifies at least one of an identity and a profile of said user.

16. (Previously Presented) The method of claim 5, further comprising performing multiplexing and at least one of cross-connecting and broadcasting channels to

different coverage zones, by a regenerator positioned on said satellite, wherein said network controller performs control operations and verifies at least one of an identity and a profile of said user.

17. (Previously Presented) The system of claim 1, wherein said request from said user comprises a request for video on demand service.

18. (Previously Presented) The method of claim 5, wherein said request comprises a request for video on demand service.

19. (new): The system of claim 1, wherein said synchronous manner comprises synchronous multiplexing, such that the following is true:

Nu/Riu=Ntd/(CVR*RS*Rtd),

wherein:

Tuf=Nu/Riu=K/27 MHz is a period of the uplink frame in microseconds;

Nu is information of Moving Picture Experts Group 2-Transport System (MPEG2-TS) packets within the uplink frame in bits;

Riu is an uplink information transmission rate in Mbit/s;

K is a whole number that represents a number of network clock reference (NCR) cycles in the uplink frame;

Ntd is information in the MPEG 2-TS packets, expressed in bits and mapped into the downlink frame;

CVR is a ratio of convolutional code selected for the downlink digital video broadcasting via satellite (DVB-S) signal, having a value that comprises 1/2, 2/3, 3/4, 5/6 or 7/8 as defined in the DVB-S standard;

RS is a ratio of Reed-Solomon code for the MPEG2-TS packets, and equal to 188/204; and

Rtd is a downlink transmission rate including the convolutional code and Reed-Solomon code in Mbit/s.

20. (new): The method of claim 5, wherein said synchronous manner comprises synchronous multiplexing, such that the following is true:

Nu/Riu=Ntd/(CVR*RS*Rtd),

wherein:

Tuf=Nu/Riu=K/27 MHz is a period of the uplink frame in microseconds;

Nu is information of Moving Picture Experts Group 2-Transport System (MPEG2-TS) packets within the uplink frame in bits;

Riu is an uplink information transmission rate in Mbit/s;

K is a whole number that represents a number of network clock reference (NCR) cycles in the uplink frame;

Ntd is information in the MPEG2-TS packets, expressed in bits and mapped into the downlink frame;

CVR is a ratio of convolutional code selected for the downlink digital video broadcasting via satellite (DVB-S) signal, having a value that comprises 1/2, 2/3, 3/4, 5/6 or 7/8 as defined in the DVB-S standard;

RS is a ratio of Reed-Solomon code for the MPEG2-TS packets, and equal to 188/204; and

Rtd is a downlink transmission rate including the convolutional code and Reed-Solomon code in Mbit/s.